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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,874	02/09/2004	Robert Barton Hodek	1017D3	8797
24959 7590 12/27/2006 PPG INDUSTRIES INC INTELLECTUAL PROPERTY DEPT ONE PPG PLACE PITTSBURGH, PA 15272			EXAMINER SAFAVI, MICHAEL	
			ART UNIT	PAPER NUMBER
			3673	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/27/2006	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/774,874

Applicant(s)

HODEK ET AL.

Examiner

M. Safavi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-68 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 33-68 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/17/04</u> . | 6) <input type="checkbox"/> Other: ____ |

Information Disclosure Statement

The information disclosure statement filed May 17, 2004 fails to fully comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the IDS does not provide appropriate or accurate date of publication for the following references: German reference 206,130, Australian reference 481,423, and Australian reference 493,482. Further, Applicant has not submitted a copy of Australian reference 493,482. It has been placed in the application file, but the information referred to therein, with respect to each of German reference 206,130, Australian reference 481,423, and Australian reference 493,482, has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 105 and 203. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet

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should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "window sash that provides a structural frame", (**claims 33, 37, and 50**), as well as the "securing member", (**claims 44 and 60**), or the securing member in the form of "a rabbet formed on the frame or caulking", (**claims 45 and 61**), or "first [and second] upright member extending from the open area toward the inside perimeter", (**claims 37 and 50**) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

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consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: reference numeral 18 is used to denote a "compartment" as well as "legs". Further, "rabbit" as recited throughout the specification and claims should be changed to --rabbet--.

Appropriate correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not appear to possess antecedent basis for either of "window sash" or "structural frame". Nor, does the specification provide antecedent basis for "securing member".

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 36-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not appear clear and complete as to "the glazing pane spacing and mounting structure comprises a spacer frame that is detachable mounted on the inside perimeter of the structural frame", (**claim 36**). Such appears as new matter. The specification does not appear clear and complete as to "a securing member engaging at least marginal edge portions of outside major surface of one of the first and second sheets, (**claims 44 and 60**). Such appears as new matter. The specification does not appear clear and complete as to "a securing member...selected from the group of a rabbit formed on the frame or caulking", (**claims 45 and 61**). Such appears as new matter. The specification does not appear clear and complete as to "the peripheral edges of the first and second sheets out of direct contact with at least a portion of the structural frame between the first and second planes", (**claim 50**). Such appears as new matter. The specification does not appear clear and complete as to "the ends of the first upright members of the segments are independent of the ends of the second upright members of the segments to preclude the transfer of stresses between the first upright members, and the second upright members, of the segments", (**claims 37 and 50**). In particular, "...to preclude the transfer of stresses between the first upright members, and the second upright members, of the segments"

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appears as new matter. The specification does not appear to have originally disclosed "the glazing panes are isolated from one another and function independently with respect to stresses", (**claim 37**). The specification does not appear to have originally disclosed "...such that the entire first glazing sheet fits within the inside perimeter of the sash in facing relationship to the first plane and the entire second glazing sheet fits within the inside perimeter of the sash in facing relationship to the second plane", (**claims 37 and 50**).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 33, lines 24-25, it is not clear as to what "the other one of the glazing" refers. Therefore, it is not clear as to what is being defined by "the second glazing pane being adhesively mounted to the other one of the glazing".

Claim 34, line 2, "the first and second upright members" lacks antecedent basis within the claim. It is therefore, unclear as to what "the first and second upright members" refers.

Claim 37, lines 59-62, it is not understood as to what is being defined by "the ends of the first upright members of the segments are independent of the ends of the second upright members of the segments to preclude the transfer of stresses between

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the first upright members, and the second upright members, of the segments". The specification does not appear clear and complete as to any such feature.

Claim 42 is not clear in that there does not appear to be an appropriate generic grouping defined within the language of claim 42. What, for example, is being defined by "selected from the group of segments made from..."? Are there other segments which may go to form the claimed invention?

Claim 44, it is not clear as to what is being defined by "a securing member engaging at least marginal edge portions of outside major surface of one of the first and second sheets" The specification does not appear to present any such "securing member".

Claim 45 is not clear in that there does not appear to be an appropriate generic grouping defined within the language of claim 45. What, for example, is being defined by "selected from the group of..."? Are there other securing members which may go to form the claimed invention? Further, it is not clear as to what is being defined by "the securing member is...a rabbit (sic) formed, on the frame or caulking" The specification does not appear to present any such "securing member".

Claim 46, lines 3 and 5, to which frame does "the frame" refer?

Claim 50, the language within the last three lines is not clear. The specification does not appear to present any arrangement having "the peripheral edges of the first and second sheets out of direct contact with at least a portion of the structural frame between the first and second planes."

Claim 56 is not clear in that there does not appear to be an appropriate generic grouping defined within the language of claim 56. What, for example, is being defined by "made of a material selected from..."? Are there other materials which may go to form the claimed invention?

Claim 57 is not clear in that there does not appear to be an appropriate generic grouping defined within the language of claim 57. What, for example, is being defined by "selected from the group of segments made from..."? Are there other segments which may go to form the claimed invention?

Claim 60, it is not clear as to what is being defined by "a securing member engaging at least marginal edge portions..." The specification does not appear to present any such "securing member".

Claim 61 is not clear in that there does not appear to be an appropriate generic grouping defined within the language of claim 61. What, for example, is being defined by "selected from the group of..."? Are there other securing members which may go to form the claimed invention? Further, it is not clear as to what is being defined by "the securing member is...a rabbit (sic) formed, on the frame or caulking" The specification does not appear to present any such "securing member".

Claim 62, lines 3 and 5, to which frame does "the frame" refer?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 33-38, 44-46, 49-51, 53, 60-62, and 65-68 are rejected under 35

U.S.C. 102(b) as being anticipated by Stewart et al. '276. Stewart et al. '276

discloses an assembly having sash frame 26 with spacer 20. Spacer 20 comprises a base and parallel legs each having outer surfaces 16, 18 bonded to a respective pane 12, 14 by adhesive 22. Sides of spacer are rendered vapor impermeable as by being formed of metal. A desiccant 24 lies between the legs, (or upright members), held by or within a vapor pervious adhesive 24.

As for claims 44-46 and 60-62, securing member, as caulking 44, engages at least marginal edge portions of outside major surface of one of the first and second sheets 12, 14.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 33, 34, 36-42, 44-46, 50-58, 60-62, 65, 67, and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowser et al. '023 in view of Bayer '582.

Bowser et al. '023 discloses, Fig. 2, an assembly having sash frame 48 with spacer 16. Spacer 16 comprises a base and parallel legs with each leg having outer surfaces bonded to a respective pane 12, 14 by adhesive 18. Sides of spacer are rendered vapor impermeable as by being formed of metal. Also, sides of spacer are rendered vapor impermeable as by layers 18. Bowser et al. does not appear to specifically disclose any particular sash frame within which the double pane window may be located.

However, Bayer '582 teaches application of a double pane window panel assembly within a sash frame 10. Therefore, to have provided the Bowser et al. double pane window panel assembly within a sash frame, thus allowing for any particular portal use such, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Bayer '582.

As for claims 44-46 and 60-62, the resulting Bowser et al. assembly would have securing member, as caulking 11 or rabbet, engaging at least marginal edge portions of outside major surface of one of the first and second sheets 12, 14.

Claims 35, 43, 49, 59, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowser et al. '023 in view of Bayer '582 as applied to claims 33,

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34, 36-42, 44-46, 50-58, 60-62, 65, 67, and 68 above, and further in view of Stewart et al. '276.

The modified Bowser et al. assembly has a desiccant or dryer 34, 38 which desiccant or dryer lies between the legs, (or upright members), of the spacer 16. Stewart et al. discloses a desiccant 24 between the legs, (or upright members), of the spacer and held by or within a vapor pervious adhesive 24.

Therefore, to have provided the modified Bowser et al. Fig. 2 assembly with a desiccant between the legs, (or upright members), and held by or within a vapor pervious adhesive, thus utilizing a known secure dryer element within the double panel assembly, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Stewart '276.

Claims 47, 48, 63, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowser et al. '023 in view of Bayer '582 as applied to claims 33, 34, 36-42, 44-46, 50-58, 60-62, 65, 67, and 68 above, and further in view of any of Derner et al. '683, Krysiak et al. '091, Haas '515, and Mitchell '589.

The modified Bowser et al. assembly does not appear to specifically disclose a plastic spacer frame against which the panels 12, 14 may be located.

However, each of Derner et al. '683, Krysiak et al. '091, Haas '515, and Mitchell '589 teaches application of a plastic spacer within a double pane window panel assembly, (col. 4, lines 23-26 of Derner et al. '683; line 64 in col. 9 to line 18 in col. 10 of Krysiak et al. '091; col. 3, lines 59-64 and col. 4, lines 1-6 of Haas '515; col. 4, lines 37-

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40 of Mitchell '589). Therefore, to have formed the spacer 16 of the modified Bowser et al. double pane window panel assembly as a plastic spacer, thus providing a strong thermally enhanced spacer arrangement, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by any of Derner et al. '683, Krysiak et al. '091, Haas '515, and Mitchell '589. The resulting Bowser et al. assembly would have a plastic spacer inherently possessing a vapor impervious quality. In any event, to have further formed the resulting plastic spacer of Bowser et al. from a vapor impervious plastic material, thus enhancing the insulating quality of the double pane window assembly, would have constituted an obvious expedient to one having ordinary skill in the art at the time the invention was made.

Claims 33, 34, 36-42, 44-46, 50-58, 60-62, 65, 67, and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al. '276 in view of any of Derner et al. '683, Krysiak et al. '091, Haas '515, and Mitchell '589.

Stewart et al. does not appear to specifically disclose a plastic spacer frame against which the panels 12, 14 may be located.

However, each of Derner et al. '683, Krysiak et al. '091, Haas '515, and Mitchell '589 teaches application of a plastic spacer within a double pane window panel assembly, (col. 4, lines 23-26 of Derner et al. '683; line 64 in col. 9 to line 18 in col. 10 of Krysiak et al. '091; col. 3, lines 59-64 and col. 4, lines 1-6 of Haas '515; col. 4, lines 37-40 of Mitchell '589). Therefore, to have formed the spacer 16 of the Stewart et al. double pane window panel assembly as a plastic spacer, thus providing a strong

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thermally enhanced spacer arrangement, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by any of Derner et al. '683, Krysiak et al. '091, Haas '515, and Mitchell '589. The resulting Stewart et al. assembly would have a plastic spacer inherently possessing a vapor impervious quality. In any event, to have further formed the resulting plastic spacer of Stewart et al. from a vapor impervious plastic material, thus enhancing the insulating quality of the double pane window assembly, would have constituted an obvious expedient to one having ordinary skill in the art at the time the invention was made.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Safavi whose telephone number is (571) 272-7046. The examiner can normally be reached on Mon.-Thur., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



MICHAEL SAFAVI
PRIMARY EXAMINER
ART UNIT 354

M. Safavi
November 22, 2006